

STEM Engagement and Robotics Workshops in the Community

Aerospace Education Research Operations (AERO) Associates

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Introduction

It is my objective to inspire and engage students and the public in science, technology, engineering, and math (STEM) through hands on STEM activities during the City of Palmdale's Thursday Nights on the Square (TNOTS) as well as various robotics workshops throughout the AV and the San Bernardino County.

Thursday Nights on the Square



TNOTS is a community event that happens every Thursday during the summer where community members can come and take part in summer festivities in the park. During TNOTS I take part in facilitating various STEM related hands on activities as well as help to facilitate the public in the Aerospace Exploration Gallery with exhibits and simulators.

Robotics Workshops



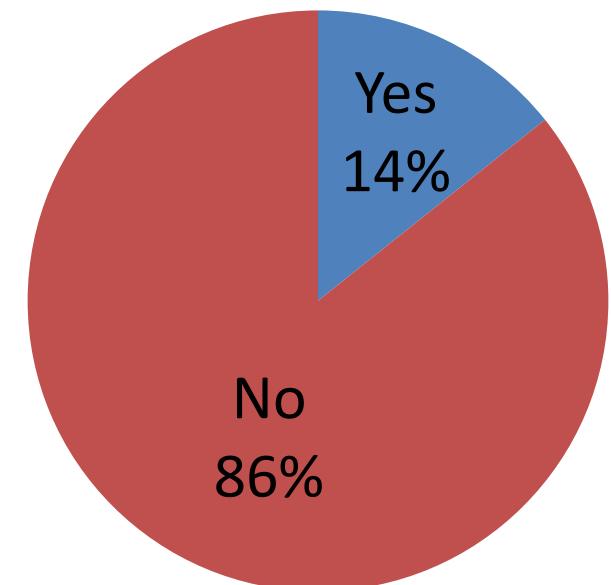
With my expertise in robotics, I am able to conduct workshops using the LEGO platform inspiring and engaging students and educators in STEM. Through these workshops participants are able to learn and apply the basic principles of engineering.

Data/Evidence

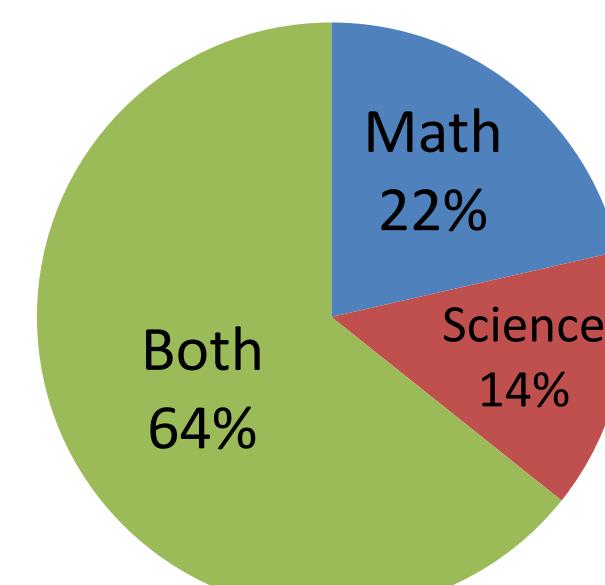
Before and after each workshop the participants take a survey that will allow us to see how the workshop impacts them in the fields of STEM and the various robotics platforms as well as how the workshop may affect their future career choice.

Pre Workshop Data

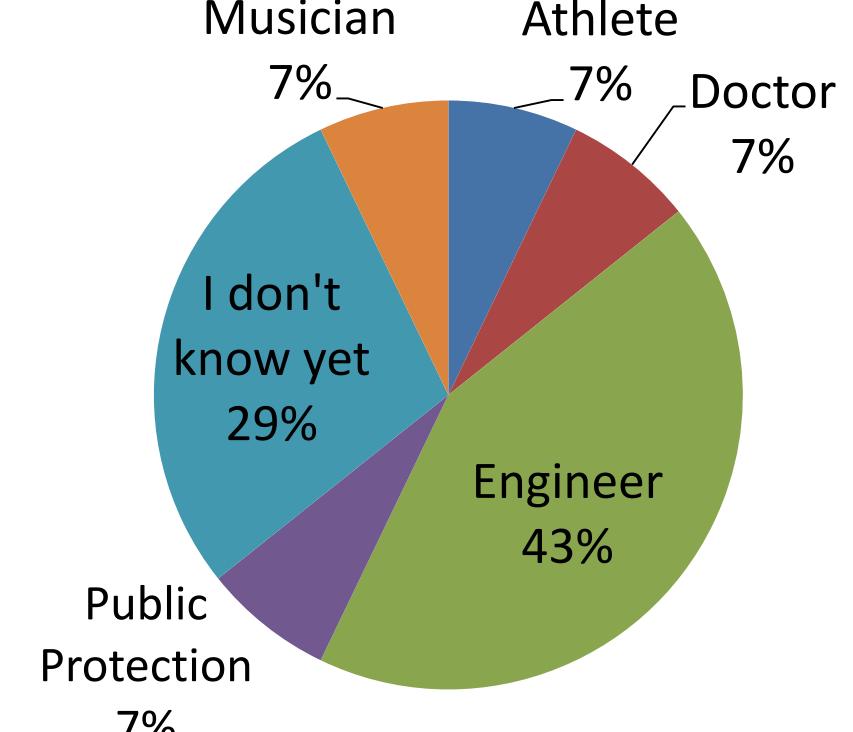
Are you familiar with FIRST robotics or other platforms?



Do you enjoy math or science in school?

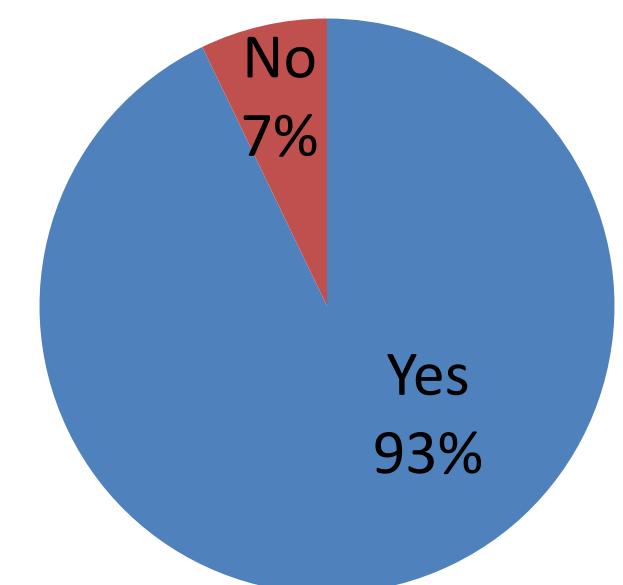


What job/career would you like to have when you grow up?

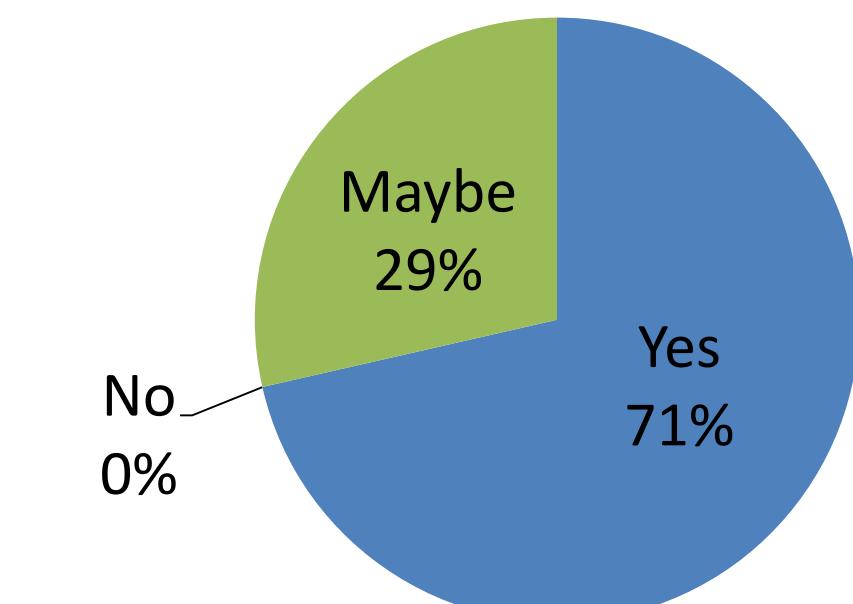


After Workshop Data

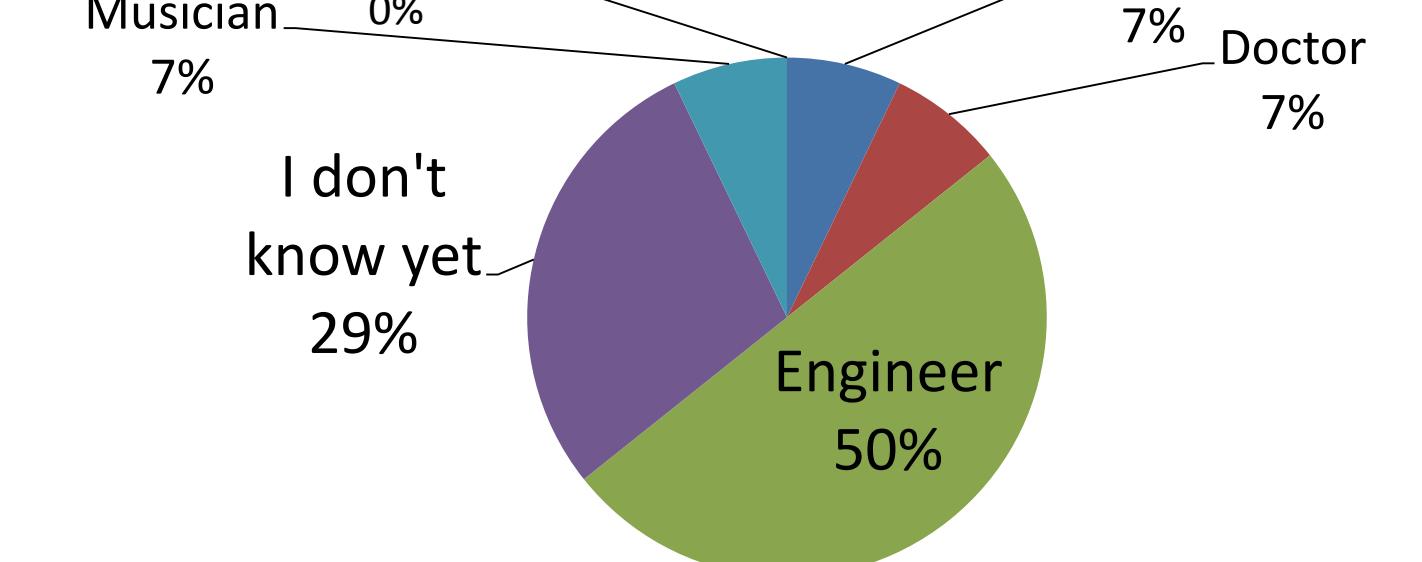
Are you somewhat NOW familiar with FIRST or other robotics platforms?



Do you think that after completing this workshop that you will engage in more math or science?



What job/career would you like to have when you grow up?



Conclusion

The results of my project will allow the public to be more knowledgeable about NASA and will inspire them to explore additional areas of STEM. The workshops will allow participants to be engaged in STEM with the hope that through them they will be inspired to start their own robotics team and pursue careers in STEM.